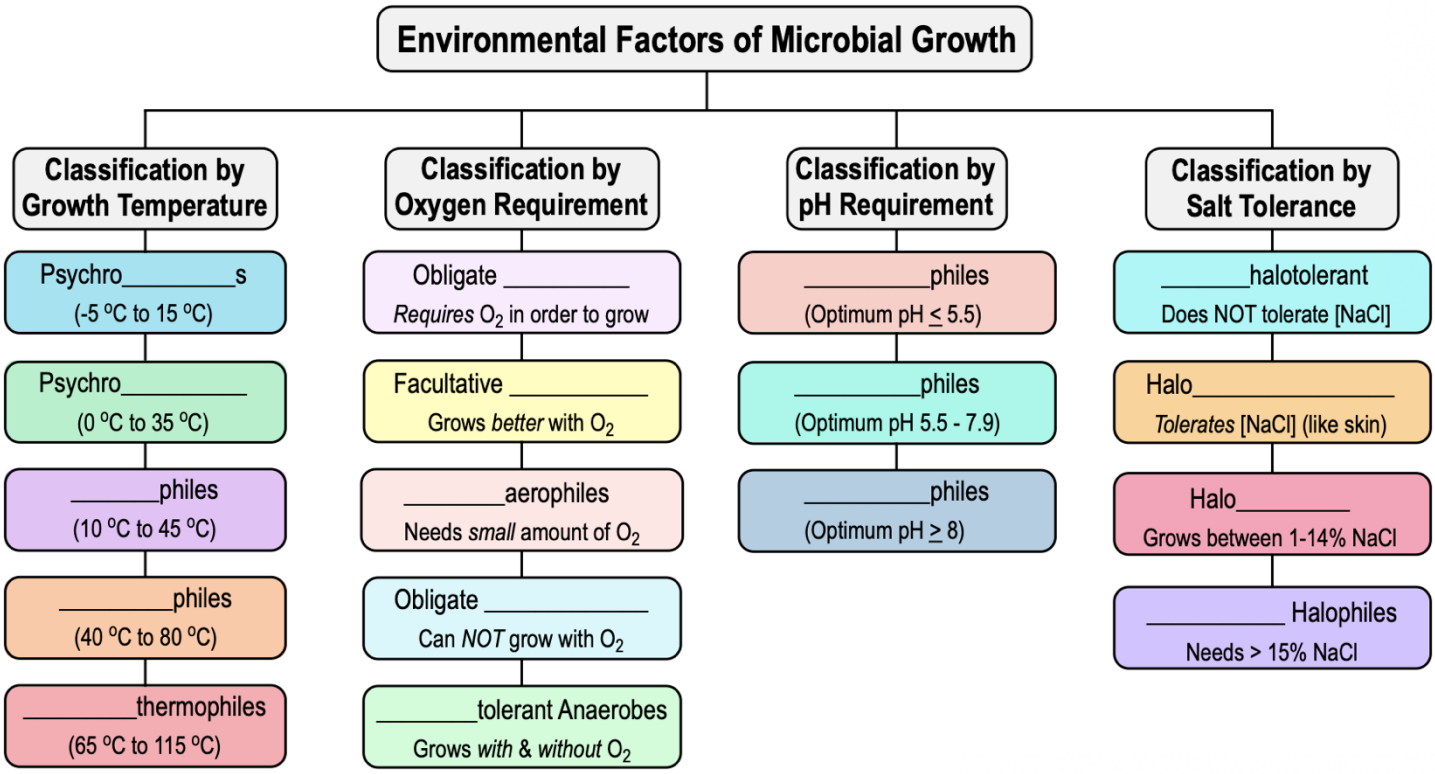
CONCEPT: REVIEWING THE ENVIRONMENTAL FACTORS OF MICROBIAL GROWTH

EXAMPLE: Fill-in the following blanks throughout the flow chart below



PRACTICE: *Methanopyrus kandleri* is a species of archaea that lives in the hydrothermal vents of the Pacific Ocean. This species' optimal temperatures are between 100-122 ºC. This species also does not require oxygen, as it survives off of hydrogen gas and releases methane gas. What environmental classifications would this archaeal species fit into?

a) Mesophile & Obligate Aerobe.
b) Non-halotolerant & Psychrophile.
c) Neutrophile & Facultative Aerobe.
d) Hyperthermophile & Obligate Anaerobe.

PRACTICE: *Acidobacterium capsulatum* is a species of bacteria that grows better in the absence of oxygen but can survive if oxygen is present. This species of bacteria also thrives in soil and water with a pH between 3.0 and 6.0. What environmental classifications would this bacterial species fit into?

a) Extreme Halophile & Mesophile.
b) Facultative Anaerobe & Acidophile.
c) Facultative Aerobe & Alkaliphile.